

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 25, 2002

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, RFETS Site Representative
SUBJECT: RFETS Activity Report for the Week Ending January 25, 2002

Radiological Uptakes in Building 771 - Update. As reported in early January, two radiological control technicians (RCTs) received uptakes of 1.6 and 0.3 rem CEDE, respectively, as the result of removing a small amount of dust and paint chips from a floor area in Building 771 in early October 2001. The site rep. and staff discussed this event with RFETS personnel. In response to site rep. and staff questions on the timeliness of external reporting, DOE-RFFO management indicated that future external reporting of such events should occur when the bioassay data is sufficient to determine a substantial uptake (as was known by early December for this event) and not wait (several weeks for this event) until additional data is received to finalize the exact dose. DOE-RFFO is continuing to pursue other questions regarding determination of cause(s) including the work control applied to this activity (i.e., whether the material removal was covered under the scope of the Radiological Work Permit). (1-C)

Conduct of Operations/Criticality Safety. Building 371 personnel loaded a 55-gallon drum with 4 cans of waste with a combined value of 239 grams violating the drum criticality safety mass limit of 200 grams plutonium. It was determined that 2 of the 4 cans loaded into the drum were not the cans intended to be loaded per the drum load list. The material handling personnel retrieved the 2 wrong cans from storage not recognizing that the 3rd digit of the 6-digit identifier was wrong. The drum load list contains the plutonium assay values for each can. The drum loading was completed using the intended (but not applicable) plutonium assay values (5 grams for the 2 intended cans) to meet the drum mass limit. When the can identification discrepancy was discovered, it was determined that the 2 cans had a combined plutonium assay value of 235 grams. As a result of this event and the recurrent nature evident from recent similar events (see site rep. reports of January 4th and November 9th), a senior supervisory watch has been put in place for Building 371 nuclear material handling operations. This watch will continue at least through the week of January 28th to reinforce proper attention to detail/conduct of operations. (1-C)

Recommendation 94-3. Following closure of Recommendation 94-3, *Rocky Flats Seismic and Systems Safety*, the DOE Office of Environmental Management (EM) committed in July 1999 to making a decision on completing upgrades to nuclear material storage areas in Building 371 when various criteria related to shipment and disposition of special nuclear material were satisfied. The projected dates for such a decision have been deferred since late 1999. DOE-RFFO recently informed DOE-EM that the decision on upgrades needs to be deferred again until late 2002 as a result of the current delays in shipment of special nuclear material off-site. (1-C)

Public Interaction. This week, DOE-RFFO held their "State of the Flats" annual meeting, a public forum to discuss progress and issues concerning RFETS. The site rep. provided a short discussion of Board perspective on RFETS during the past year. Issues addressed included plutonium stabilization under Recommendation 94-1, Integrated Safety Management under Recommendation 95-2, and use of engineered safety controls for decommissioning activities.